

Table 1 to paragraph (h)			
Vehicle/Track Interaction Safety Limits			
Wheel-Rail Forces ¹			
Parameter	Safety Limit	Filter / Window	Requirements
Single Wheel Vertical Load Ratio	≥ 0.15	1.5 m (5 ft)	No wheel of the vehicle shall be permitted to unload to less than 15 percent of the static vertical wheel load for 1.5 m (5 ft) or more continuous meters. The static vertical wheel load is defined as the load that the wheel would carry when stationary on level track.
Single Wheel L/V Ratio	$\leq \frac{\tan(\delta) - 0.5}{1 + 0.5 \tan(\delta)}$	1.5 m (5 ft)	The ratio of the lateral force that any wheel exerts on an individual rail to the vertical force exerted by the same wheel on the rail shall not be greater than the safety limit calculated for the wheel's flange angle (δ) for 1.5 m (5 ft) or more continuous meters.
Net Axle Lateral L/V Ratio	$\leq 0.4 + \frac{22.24}{Va}$	1.5 m (5 ft)	The net axle lateral force, in kN, exerted by any axle on the track shall not exceed a total of 22.24 kN (5 kips) plus 40 percent of the static vertical load that the axle exerts on the track for 1.5 m (5 ft) or more continuous meters. Va = static vertical axle load (kN)
Bogie Side L/V Ratio	≤ 0.6	1.5 m (5 ft)	The ratio of the lateral forces that the wheels on one side of any bogie exert on an individual rail to the vertical forces exerted by the same wheels on that rail shall not be greater than 0.6 for 1.5 m (5 ft) or more continuous meters.